Miles

EUROPEAN PATENT OFFICE

Patent Abstracts of Japa







PUBLICATION NUMBER
PUBLICATION DATE

: 09206252 : 12-08-97

APPLICATION DATE APPLICATION NUMBER

: 31-01-96 : 08035799

APPLICANT :

SANYO ELECTRIC CO LTD;

INVENTOR:

YONEDA ISAO:

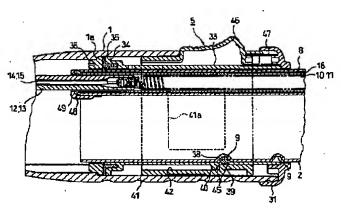
INT.CL.

A47L 9/24

TITLE

EXPANSION PIPE FOR VACUUM

CLEANER



ABSTRACT :

PROBLEM TO BE SOLVED: To prevent the breaking of expansion springs by providing a first and a second sleeves, which are stored in an inner and outer pipe, respectively and slidably inserted therein mutually in a wiring mechanism, and storing the expansion spring connected to a terminal of one pipe end.

SOLUTION: An expansion pipe is formed of an outer pipe connected to a vacuum cleaner main body side, a coupling member connected to a power brush side of a suction means, and an inner pipe 2 for connecting them to each other. A storing part 8 for storing a wiring mechanism including a pair of expansion springs 10, 11 which feed power supply to the power brush is formed in the inner pipe 2. The respective expansion springs 10, 11 have the diameter smaller than the internal diameter of a cylindrical part provided in a sleeve 16, which is inserted in the storing part 8, have the both ends formed into tapered states, and have lead wires 14, 15 connected to the respective ends. The central parts of the expansion springs 10, 11 are formed into the large diameters matching the internal diameters of the cylindrical parts of the sleeves 12, 13 so that the spring load can be reduced.

COPYRIGHT: (C)1997,JPO

This Page Blank (uspto,